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Tests 2280 & 2317: Case IH JX 1080U Diesel

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SUMMARY OF OECD TESTS 2280 and 2317—NEBRASKA SUMMARY 529

CASE IH JX 1080U DIESEL

12 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed—1049 rpm)					
71.6 (53.4)	2498	4.87 (18.42)	0.476 (0.290)	14.71 (2.90)	
Maximum Power (2 hours)					
72.1 (53.8)	2400	4.81 (18.21)	0.467 (0.284)	15.00 (2.96)	
Standard Power Take-off speed (1008 rpm)					
72.1 (53.8)	2400	4.81 (18.21)	0.467 (0.284)	15.00 (2.96)	
VARYING POWER AND FUEL CONSUMPTION					
71.6 (53.4)	2498	4.87 (18.42)	0.476 (0.290)	14.71 (2.90)	Air temperature
64.4 (48.0)	2648	4.75 (17.98)	0.517 (0.315)	13.55 (2.67)	67°F (20°C)
48.7 (36.3)	2662	4.04 (15.31)	0.583 (0.354)	12.04 (2.37)	Relative humidity
32.2 (24.0)	2671	3.17 (12.00)	0.691 (0.421)	10.14 (2.00)	65%
16.2 (12.1)	2679	2.35 (8.90)	1.013 (0.616)	6.92 (1.36)	Barometer
--	2691	1.73 (6.56)	--	--	29.0" Hg (98.2 kPa)
--		--	--	--	
Maximum Torque -216.5 lb.-ft. (292.7 Nm) at 1400 rpm					
Maximum Torque Rise -43.4%					
Torque rise at 2000 engine rpm -23%					

Location of tests: Istituto Per La Macchine Agricole
E Movimento Terra, Strada delle Cacce, 73-10135
Torino, Italy

Dates of tests: September to November, 2004
Manufacturer: CNH America LLC, 700 State St.
Racine, Wi. 53404 USA

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.842
Fuel weight 7.01 lbs/gal (0.840 kg/l) **Oil** SAE 15W40
API service classification CH-4 **Oil consumption for 10 hours** 0.02 lb (10 gm) **Transmission and hydraulic lubricant** Ambra Multi G **Front axle lubricant** Ambra Multi G

ENGINE: Make CNH Diesel **Type** four cylinder vertical **Serial No.** 101083 **Crankshaft** lengthwise **Rated Engine speed** 2500 **Bore and stroke** 4.094" x 5.197" (104.0 mm x 132.0 mm) **Compression ratio** 17.5 to 1 **Displacement** 274 cu in (4485 ml) **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Muffler** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: **Type** 2WD and front wheel assist **Serial No.** HJT001781 **Tread width** rear 64.3" (1632 mm) to 83.9" (2132 mm) front: 2WD - 55.4" (1407 mm) to 85.6" (2175 mm), FWA - 56.1" (1425 mm) to 84.0" (2133 mm) **Wheel base** 2WD - 92.2" (2342 mm) FWA - 91.1" (2314 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.37 (2.20) second 1.98 (3.19) third 2.86 (4.60) fourth 3.19 (5.13) fifth 4.10 (6.60) sixth 4.64 (7.46) seventh 6.66 (10.71) eighth 7.51 (12.08) ninth 9.59 (15.44) tenth 10.91 (17.56) eleventh 15.74 (25.32) twelfth 22.54 (36.27) reverse 1.37 (2.20), 1.98 (3.19), 2.86 (4.60), 3.19 (5.13), 4.10 (6.60), 4.64 (7.46), 6.66 (10.71), 7.51 (12.08), 9.59 (15.44), 10.91 (17.56), 15.74 (25.32), 22.54 (36.27) **Clutch** dual dry disc operated by foot pedal **Brakes** wet disc hydraulically operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2199 engine rpm or 1000 rpm at 2381 engine rpm **Unladen tractor mass** 2WD - 8510 lb (3860 kg), FWA - 8710 lb (3950 kg)

**DRAWBAR PERFORMANCE(40 km/h trans.)
BALLASTED - FRONT DRIVE ENGAGED
FUEL CONSUMPTION CHARACTERISTICS**

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
75% of Pull at Maximum Power—Five Hours 5th (4 Lo) Gear									
49.5 (36.9)	4455 (19.8)	4.16 (6.70)	2648	2.8	0.674 (0.410)	10.41 (2.05)	190 (88)	63 (17)	29.1 (98.7)
MAXIMUM POWER IN SELECTED GEARS									
2nd (2 Lo) Gear									
44.0 (32.8)	9485 (42.2)	1.74 (2.80)	2645	15.0	0.756 (0.460)	9.27 (1.83)	192 (89)	68 (20)	29.3 (99.1)
3rd (3 Lo) Gear									
55.7 (41.5)	8185 (36.4)	2.55 (4.10)	2402	7.2	0.606 (0.369)	11.57 (2.28)	194 (90)	70 (21)	29.3 (99.1)
4th (1 Med) Gear									
57.5 (42.9)	7710 (34.3)	2.80 (4.50)	2398	5.8	0.588 (0.357)	11.93 (2.35)	189 (87)	68 (20)	29.3 (99.1)
5th (4 Lo) Gear									
58.2 (43.4)	5955 (26.5)	3.67 (5.90)	2402	4.0	0.579 (0.352)	12.10 (2.38)	189 (87)	70 (21)	29.3 (99.1)
6th (2 Med) Gear									
58.1 (43.3)	5150 (22.9)	4.23 (6.80)	2387	3.3	0.580 (0.353)	12.08 (2.38)	192 (89)	72 (22)	29.3 (99.1)
7th (3 Med) Gear									
57.1 (42.6)	3410 (15.2)	6.28 (10.10)	2400	2.2	0.592 (0.359)	11.88 (2.34)	189 (87)	73 (23)	29.3 (99.1)
8th (1 Hi) Gear									
56.5 (42.1)	3015 (13.4)	7.02 (11.30)	2397	1.6	0.598 (0.364)	11.72 (2.31)	189 (87)	72 (22)	29.3 (99.1)
9th (4 Med) Gear									
52.7 (39.3)	2180 (9.7)	9.07 (14.60)	2402	1.0	0.639 (0.389)	10.96 (2.16)	189 (89)	72 (22)	29.3 (99.1)
10th (2 Hi) Gear									
52.3 (39.0)	1890 (8.4)	10.38 (16.70)	2408	0.8	0.645 (0.393)	10.86 (2.14)	194 (90)	70 (21)	29.3 (99.1)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claim of 78.0 dB(A) cab sound level. The manufacturer's 3 point lift claim of 6445 lbs (2923 kg) with EDC (electronic draft control) was not verified. The performance results on this summary were taken from OECD tests conducted under the Code I Test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Reports No. **2280** and **2317**, Nebraska Summary 529, May 26, 2006.

Leonard L. Bashford
Director

M.F. Kocher
V.I. Adamchuk
J.A. Smith
Board of Tractor Test Engineers

FWA-(40 km/h trans)

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi (kPa) Two 540/65R34; **,15 (100)	Two 540/65R34; **,15 (100)
Ballast	-Liquid (total) None	None
	-Cast Iron (total) 660 lb (300 kg)	None
Front Tires	-No., size, ply & psi (kPa) Two 440/65R24; **,17 (120)	Two 440/65R24; **,17 (120)
Ballast	-Liquid (total) None	None
	-Cast Iron (total) 1115 lb (505 kg)	None
Height of Drawbar	18.1 in (460 mm)	18.3 in (465 mm)
Static Weight with Operator	- Rear 5745 lb (2605 kg)	5345 lb (2425 kg)
	- Front 4905 lb (2225 kg)	3530 lb (1600 kg)
	- Total 10650 lb (4830 kg)	8875 lb (4025 kg)

DRAWBAR PERFORMANCE(30 km/h trans.)

BALLASTED - 2WD

FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F cool- ing med	°C Air dry bulb	Barom. inch Hg (kPa)
75% of Pull at Maximum Power—Five Hours 8th (1 Hi) Gear									
44.8 (33.4)	2790 (12.4)	6.03 (9.70)	2557	4.2	0.755 (0.459)	9.29 (1.83)	194 (90)	68 (20)	29.2 (99.0)

MAXIMUM POWER IN SELECTED GEARS

5th (4 Lo) Gear									
50.3 (37.5)	6745 (30.0)	2.80 (4.50)	2458	15.0	0.675 (0.411)	10.38 (2.05)	192 (89)	72 (22)	29.3 (99.1)
6th (2 Med) Gear									
54.3 (40.5)	6185 (27.5)	3.29 (5.30)	2402	9.0	0.621 (0.378)	11.27 (2.22)	194 (90)	74 (23)	29.3 (99.1)
7th (3 Med) Gear									
55.0 (41.0)	4200 (18.7)	4.91 (7.90)	2405	5.5	0.614 (0.373)	11.42 (2.25)	194 (90)	72 (22)	29.3 (99.1)
8th (1 Hi) Gear									
55.4 (41.3)	3755 (16.7)	5.53 (8.90)	2397	4.5	0.609 (0.371)	11.50 (2.27)	192 (89)	70 (21)	29.3 (99.1)
9th (4 Med) Gear									
54.0 (40.3)	2810 (12.5)	7.21 (11.60)	2402	3.5	0.625 (0.380)	11.22 (2.21)	190 (88)	68 (20)	29.3 (99.1)
10th(2 Hi) Gear									
51.6 (38.5)	2360 (10.5)	8.20 (13.20)	2397	3.2	0.653 (0.397)	10.73 (2.11)	194 (90)	70 (21)	29.3 (99.1)
11th(3 Hi) Gear									
43.2 (32.2)	1350 (6.0)	11.99 (19.30)	2401	2.5	0.782 (0.476)	8.96 (1.77)	190 (88)	68 (20)	29.3 (99.1)

2WD-(30 km/h trans)

TIRES, BALLAST AND WEIGHT	With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi (kPa) Two 540/65R34;**,15 (100)	Two 540/65R34;**,15 (100)
Ballast	-Liquid (total) None	None
	-Cast Iron (total) 660 lb (300 kg)	None
Front Tires	-No., size, ply & psi (kPa) Two 10.00-16;8;35 (240)	Two 10.00-16; 8;35 (240)
Ballast	-Liquid (total) None	None
	-Cast Iron (total) 1115 lb (505 kg)	None
Height of Drawbar	18.1 in (460 mm)	18.3 in (465 mm)
Static Weight with Operator	-Rear 6215 lb (2820 kg)	5840 lb (2650 kg)
	-Front 4235 lb (1920 kg)	2835 lb (1285 kg)
	-Total 10450 lb (4740 kg)	8675 lb (3935 kg)

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 6th (2 Med) gear	79.1	79.3
Bystander in 12th (4 Hi) gear	85.5	86.0

CENTER OF GRAVITY - 2WD

Horizontal distance forward from centerline of rear wheels	30.1" (765 mm)
Vertical distance above roadway	37.2" (945 mm)
Horizontal distance from center of rear wheel tread	0.1" (3 mm) to the left

CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	36.2" (920 mm)
Vertical distance above roadway	34.6" (880 mm)
Horizontal distance from center of rear wheel tread	0.2" (5 mm) to the left

TURNING ON A CONCRETE SURFACE (2WD)

Turning radius—without brake right 155" (3.95 m) left 155" (3.95 m)
Turning space radius—without brake right 161" (4.10 m) left 161" (4.10 m)

TURNING ON A CONCRETE SURFACE (FWA)

Turning radius—without brake right 230" (5.85 m) left 228" (5.80 m)
Turning space radius—without brake right 238" (6.05 m) left 236" (6.00 m)

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum force exerted through whole range:	5980 lbs (26.6 kN)
i) Opening pressure of relief valve:	NA
Sustained pressure with relief valve open:	2860 psi (197 bar)
ii) Pump delivery rate at minimum pressure:	16.4 GPM (62.2 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	14.3 GPM (54.3 l/min)
Delivery pressure:	2480 psi (171 bar)
Power:	20.8 HP (15.5 kW)

	inch	mm
A	27.8	705
B	10.0	255
C	13.9	352
D	11.7	296
E	10.1	257
F	8.1	205
G	29.3	745
H	0.4	9
I	15.7	400
J	21.2	540
K	17.7	450
L	42.1	1070
M	21.6	548
N	37.0	940
O	6.9	175
P	45.3	1150
Q	33.9	860
R	25.2	640

HITCH DIMENSIONS AS TESTED—NO LOAD

